

BARRATT DAVID WILSON HOMES

WHITE POST ROAD, BODICOTE

**S106 PLANNING OBLIGATIONS
ON-SITE OUTDOOR SPORTS FACILITIES REPORT**

PLANNING

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CLIENT Barratt David Wilson Homes

PROJECT White Post Road, Bodicote

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Drawings:

1. Drawing 2832-4-5-DR 5703 S106 On-Site Outdoor Sports Facilities Area' David Jarvis Associates Ltd. (09/03/20)
2. Drawing '2832-4-5-DR 5704 On-Site Outdoor Sports Facilities Landscape Proposals' David Jarvis Associates Ltd. (09/03/20)
3. Drawing '2832-5-2-DR 5500 Typical Tree Planting Details' David Jarvis Associates Ltd. (Dec 2019)
4. Drawing 'BOD.C.F.186_Rev.A Sports Changing Facility Plans & Elevations' David Wilson Homes (27.02.20)

1. INTRODUCTION

Planning Context

- 1.1 This report provides the specification and management plan information for the On-site outdoor sports facilities at White Post Road, Bodicote pursuant to clause 3.3, Schedule 2 of the Section 106 agreement dated 20th November 2017 which states:

'Prior to the commencement of development to submit to the Council for approval the On-Site Outdoor Sports Facilities Specification and the On-Site Outdoor Sports Facilities Management Plan and not to commence development until the Council has approved in writing the On-Site Outdoor Sports Facilities Specification and the On-Site Outdoor Sports Facilities Management Plan.'

Scope and Purpose

- 1.2 This report includes the on-site outdoor sports facilities specification and covers the layout of the sport facilities and the construction build-up of the different landscape features. The details for this area are shown on drawings 1-4 and include the S106 layout plan and a Landscape Proposal Plan. Section 2 provides a table of construction detail.
- 1.3 Sections 3-4 provide the landscape management plan aims and objectives for the proposed sports facilities on site. These determine the appropriate management prescriptions required, which is accompanied by a work schedule to provide an overall long-term management strategy.
- 1.4 Section 5 provides general management plan monitoring and management company procedure information.

2. ON-SITE OUTDOOR SPORTS FACILITIES SPECIFICATION

Landscape Element	Material Specification	Material Build Up / Construction
Changing Accommodation	Building with masonry walls and tiled roof	Refer to drawing 'BOD.C.F.186_Rev.A Sports Changing Facility Plans & Elevations'
Soft Landscape		
Pitch Grassland	Soil Build Up including:	All soil works in accordance with BS3882, BS8601 and The SAPCA Code of Practice for the Design, Construction and Improvement of Natural Sports Turf. Soils to be tested and ameliorated as required to suit soil report recommendations. All soil works to be completed in dry weather conditions.
	Drainage	Soil profiling to create pitch falls of - 1:100-1:80 direction of play 1:80-1:50 across play With banks to be no steeper than 1:3
	Subsoil	Suitable on-site subsoil provision conforming to BS8601. Grade to form smooth even contours to achieve required finished levels of topsoil. Loosen subsoil to a depth of 100mm prior to spreading topsoil. Stones larger than 50mm and debris/litter to be removed.
	Topsoil	Site sourced topsoil and imported sandy loam topsoil (as required to supplement existing topsoil quantities) conforming to BS3882 (multi-purpose topsoil). Visible weeds, roots, earth clods and stones larger than 16mm to be removed. Cultivate and grade to form smooth even flowing contours and spread evenly to give a finished firmed depth of 150mm (200mm for goal mouth areas). Soil should not be overworked and compacted. Ameliorate topsoil with 50mm depth medium/fine lime free sand and cultivate into the topsoil as required. Topsoil should have a fine tilth suitable for seeding.
	Pre seeding fertiliser	Apply and lightly cultivate to manufacturer's recommendations
	Turf Grassland – DLF PM70 Recreation seed	Sow at 50g/ m2
	Pitch markings	Water resistant white line paint. Pitch lines and layout to Mini Soccer U9/U10 and Senior Football FA standards and guidance. Line width not to exceed 12cm.
	Goal Posts and Nets	SENIOR FOOTBALL GOAL POSTS (Full Size) MH 24ft x 8ft Extra Heavy Duty Socketed Football Goal Package - Pair (The Soccer Store: FT-104 or similar approved to FA guidance) BS EN 16579 Compliant MINI SOCCER GOAL POSTS MH 12ft x 6ft Mini Soccer 76mm Steel Socketed Goal Package – Pair

		(The Soccer Store: FT-143 or similar approved to FA guidance) BS EN 16579 Compliant
Amenity Grassland	DLF PM 27 Ecosward seed	Sow at 25g/ m2
Tree Planting	<p>Species:</p> <p>Malus sylvestris 400-450cm 16-18cm Extra Heavy Standard: 3x: RB: Clear Stem min. 200cm</p> <p>Sorbus aucuparia 400-450cm 18-20cmg Semi-Mature: 3x: RB: Clear Stem min. 200cm</p> <p>Salix alba 400-450cm 18-20cmg Semi-Mature: 3x: RB: Clear Stem min. 200cm</p> <p>Pyrus calleryana 'Chanticleer' 400-450cm 18-20cmg Semi-Mature: 3x: RB: Clear Stem min. 200cm</p> <p>Populus tremula 400-450cm 18-20cmg Semi-Mature: 3x: RB: Clear Stem min. 200cm</p>	For tree planting details refer to Drawing 3.
Native Mixed Hedge	<p>Species:</p> <p>Acer campestre Clematis vitalba Corylus avellana Crataegus monogyna Ligustrum vulgare Lonicera periclymenum Prunus spinosa Viburnum opulus</p>	Plant at 1m centres and mulch to 75mm depth. Provide each plant with a 600mm high tree shelter.
Bulb Planting	<p>Species:</p> <p>Colchicum autumnale Crocus tommasinianus Crocus tommasinianus albus Crocus vernus 'Yellow Mammoth' Cyclamen hederifolium Eranthis hyemalis Galanthus nivalis</p>	Plant at 30/m2
<p>Plant stock biosecurity: All plant stock to be sourced from a supplier certified to be pest and disease free and in accordance with Plant Passport / Animal and Plant Health Agency (APHA) and current DEFRA requirements. Supplier information / certification to be retained for a period of not less than 12 years and must be made available upon request.</p>		

Hard Landscape Surfacing		
Car Park Entrance Road	Asphalt Road Surface	
	Edging	Concrete EF Edging 150 x 50mm set in a GEN2 Concrete bed and surround
	Sub Base	Granular sub-base material Type 1 to clause 803 Table 8/2 MCHW1 Series 800. Thickness depends on CBR values
	Binder Course	Dense Bituminous Macadam (100/150 pen paving grade bitumen) with crushed rock aggregate to BS 4987 (Group two mix) – 80mm thick (0/20mm size to clause 6.5) Optional for when required as a running course by construction
	Surface Course	Stone Mastic Asphalt (SMA) 30mm thick 10mm aggregate, shall comply with BSEN 13108-5:2006
Car Park Bays	Porous stone with Ecogrid E40	
	Edging	Concrete EF Edging 150 x 50mm set in a GEN2 Concrete bed and surround
	Sub Base	Type 3 reduced fines 200m depth
	Base	Terram 1000 with Ecogrid screed layer (fine stone) 40mm depth above
	Surface	Ecogrid E40 with 6-20 angular stone infill
	Accessories	Marker infills for bay demarcation
Hard Landscape Boundary Treatment and Furniture		
Kneerail	Timber kneerail 0.75m high	Posts root fixed into concrete foundation
Fixed Bollard	Timber fixed bollard Square weathered top, 200mm width, 900mm above ground	Root fixed into concrete foundation
Play Boulder	Glacial Boulder 1 to 2m x 1 to 2m x 0.4 to 1.2m with no sharp edges	Secured into concrete foundation

3. ON-SITE OUTDOOR SPORTS FACILITIES MANAGEMENT PLAN

Preliminaries

3.1 References:

- a. All references to the, "RR" within this document shall mean the Risk Register which shall form part of the Health and Safety file and/or folders for the site within which the site and play area inspection and audit sheets shall be stored. This will detail all individual site items and elements, their general condition, together with [any] remedial action required. Items not requiring immediate attention, will be submitted 2 weeks prior to, but for, discussion at the AMMR.
- b. All references to the, "AMMR" within this document shall mean the Annual Management and Maintenance Review, which shall include as a format for discussion the Risk Register (RR), out of which will derive the AMP.
- c. All references to the, "AMP" within this document shall mean the Annual Maintenance Plan. This shall be informed by the RR, but decided at the AMMR, unless matters of an urgent nature require an immediately actionable response. For example, site items or elements man made or natural that put site users at an unacceptable level of risk arising from their use or presence on site require an immediately actionable response.

3.2 *Compliance*; all workmanship shall be strictly in accordance with the Clauses of this document. All specified works are to be in accordance with DJA drawings and compliant with what follows.

3.3 *British Standards*; all work is to be carried out in accordance with the latest edition of the following:

- a. BS 1722 - Fences. (All relevant parts).
- b. BS 3882: 2015 - Specification for topsoil and requirements for use.
- c. BS 3936-1: 1992 - Nursery stock. Specification for trees and shrubs.
- d. BS 3936-7: 1989 - Nursery stock. Specification for bedding plants.
- e. BS 3936-10: 1990 - Nursery stock. Specification for ground cover plants.
- f. BS 3998: 2010 - Tree work. Recommendations.
- g. BS 4043:1989 - Recommendations for transplanting root-balled trees.
- h. BS 4428: 1989 - Code of practice for general landscape operations (excluding hard surfaces).
- i. BS 5709: 2006 - Gaps, gates and stiles. Specification.
- j. BS 5837: 2012 - Trees in relation to design, demolition and construction. Recommendations.
- k. BS 7370-1: 1991 - Grounds maintenance. Recommendations for establishing and managing grounds maintenance organizations and for design considerations related to maintenance.
- l. BS 7370-2: 1994 - Grounds maintenance. Recommendations for the maintenance of hard areas (excluding sports surfaces).
- m. BS 7370-4: 1993 - Grounds maintenance. Recommendations for maintenance of soft landscape (other than amenity turf).
- n. BS 7533 - Pavements constructed with clay, natural stone or concrete pavers. (All relevant parts).

together with the latest amendments of all these and all other relevant British Standards.

3.4 *Guidance Notes*; all work requiring the use of herbicides in or near water bodies shall be carried out in accordance with the latest edition of the following:

- a. "Guidelines for the use of herbicides on weeds in on weeds in or near watercourses and lakes" (PB2289).

- 3.5 The Contract Administrator (CA), reserves the right to condemn any work which appears unsatisfactory; due to poor workmanship or, non-compliance with this documentation. The sub-contractor shall, at his own expense, make good any defects or liabilities to the satisfaction of the CA, and shall be responsible for all the consequential costs resulting from his failure to comply with this documentation.”
- 3.6 *Responsibility*; Non-approval or non-acceptance shall not relieve the Contractor of his responsibilities under the contract for the quality of materials and standard of workmanship in the works.

Health and Safety

- 3.7 All works shall be carried out in accordance with the Authority’s and the Contractor’s own Health and Safety Policy and in accordance with all current Statutory Obligations.
- 3.8 All landscape maintenance operations shall be subject to the preparation and approval of a project specific Risk Assessment and Method Statement prior to commencing any works on site. Copies of these shall be made readily available to each team vehicle attending the Premises. A full copy shall be forwarded [and approved by] the MC, prior to visiting the site.
- 3.9 The contractor shall exercise all reasonable care and consideration towards visiting members of the public in order to provide protection against hazards caused by the required maintenance operations. Examples include [but may not be limited to]:
- a. Appropriate signage used to warn members of the public of the operations taking place.
 - b. Appropriate barriers/method of cordoning off the work site to prevent access by the public may be required for certain maintenance operations.
 - c. Special care and attention shall be exercised by the contractor when working near parked cars.
- 3.10 COSHH assessments shall be completed for all substances hazardous to human health that are to be used on site. These may include [but not necessarily be limited to]: herbicides, pesticides, fertilisers and fuel. Copies shall again be forwarded to the MC for approval prior to commencing works on site.
- 3.11 The Contractor shall also note the following whilst on site:
- a. All personnel are to check in and out of the compound upon arrival/departure.
 - b. The correct PPE appropriate to the maintenance operation to be carried out is to be worn at all times when on site. High visibility waistcoats shall be worn at all times.
 - c. Vehicles and trailers shall be parked in locations so as not to cause parking issues for visiting members of the public.
 - d. No machinery shall be left unattended at any time. All machinery shall be in a serviceable condition and be fit for its purpose.
 - e. Smoking on site shall be allowed in designated areas only.
 - f. No audible music to be played whilst on site.
 - g. No alcohol to be consumed whilst on site.
 - h. All defective and vandalised areas shall be reported with photographic evidence supplied immediately. Areas that may cause harm shall be cordoned off and made safe.
 - i. All contractor’s workwear and vehicles shall bear their employer’s name upon them.
 - j. Contractors will be allowed access to on site comfort facilities.
 - k. Contractors are required to supply a periodic work schedule for the duration of the rectification period and landscape maintenance period to the Site Duty Manager.
 - l. Contractors must make contact with the MC (Site Duty Manager) in advance of pending visits/attendances.

- m. Any incidents arising as a result of the contractor carrying out his duties under contract must be reported to the Site Duty Manager with immediate effect.

Overall Management Aims and Objectives

3.12 Aims and Objectives:

- a. To provide and maintain attractive/visually appealing and robust recreation pitches and associated facilities.
- b. To help partially screen the car parking area from nearby residential properties with soft landscaping.
- c. Manage and enhance the soft landscape and ensure their future longevity.
- d. To maintain health and safety requirements.
- e. To maintain surfaced paths in a safe and good condition.
- f. Create a litter free environment.
- g. To maintain the visual appearance and safety of all furniture, boundary treatments and play elements in accordance with original design intention.

General Tree and Hedgerow Work and Surveys

- 3.13 All tree work (including work to dead, dying and diseased trees) shall be carried out by an Arboricultural Association approved contractor (arboricultural contractor or arborist) to latest version of BS 3998: Recommendations for Tree Work (at the time of writing: 2010); whom, unless by agreement to the contrary, shall be responsible for obtaining all necessary felling licenses pertaining to the work.
- 3.14 Contractors should be aware of the legal protection afforded to breeding birds/nests, amphibians and bats/bat roosts. The bird nesting season is generally (although not restricted to) March - August inclusive. Under no circumstances shall trees be removed and or disturbed during this time if there are bird's nests present. Should works be required within this period the vegetation must first be inspected by an ecologist who will advise on any restrictions necessary to protect nesting birds. Cutting in February allows the fruit to remain on the trees for the longest period to feed the birds. Overtime, changes to the tree such as ivy on trees or the development of splits or holes may make them more suitable as a bat roost. Prior to any works taking place at any time of year the trees shall be assessed for the suitability for roosting bats by an Ecologist and appropriate mitigation and/or licencing will be undertaken as required.

Management of Proposed Planting Components

- 3.15 This incorporates all 'publicly accessible' soft landscape and boundary treatments (where applicable) including tree planting, hedge planting and grassland.
- 3.16 The management requirements for new planting will need to change as the planting establishes and begins to mature. Three phases are identified as below including the initial 12 month maintenance period. However, as these definitions are not mutually exclusive (of one another) a programme of monitoring will be necessary to ensure the management aims and objectives are effectively realised.

Proposed Planting Management Phases

- 3.17 *Short Term (1-3yrs)* – this incorporates the initial 12 month maintenance period; the initial establishment period will require more frequent maintenance operations to ensure planting thrives without competition and planting sundries are maintained. Cosmetic and/or functional pruning operations may be carried out during this timeframe to ensure the overall aims and objectives are met and to ease the maintenance burden over the medium to long term timeframe. Management examples may include removal of crossing/rubbing branches to maintain general tree health, removal of tree supports once wind firm, crown reduction to maintain appearance, or removal of branches to manage conflicts both ‘on’ and ‘off’ site.
- 3.18 *Medium to Long Term (4+yrs)*; as the development establishes and matures, the management regime will shift to ensure longevity. Pruning and/or other operations may be required. Precise timing will be dependent on a programme of monitoring to ensure effective maintenance is carried out at the appropriate time.

Proposed Native Field Hedgerow Planting

Management Aims and Objectives

- 3.19 Maintain the hedgerow to encourage healthy establishment and a good shape.
- 3.20 Prevent the spread of undesirable species.
- 3.21 Avoid ingress onto public paths.
- 3.22 Include native planting to promote and enhance the existing site biodiversity. Seeds and plants should be from local sources of provenance.
- 3.23 Keep hedgerow base litter free.

Management Prescriptions

Short Term Management

- 3.24 Refer to ‘*General Soft Landscape Operations*’ below for general maintenance prescriptions.
- 3.25 Pruning - Pruning of native hedges shall have the following objectives:
- a. To remove any dead, dying or diseased wood.
 - b. Pruning of hedgerows should encourage the development of tall “A” shaped, full hedgerows (at 1.8m in height and at least 1 metres in width), with a dense base cover.
 - c. To remove suckers or other unwanted growth.
- 3.26 Prune in accordance with good horticultural and arboricultural practice.
- 3.27 Heavy pruning shall be carried out in the first year to encourage bushy side growth, thereafter; pruning will be carried out on a 3 year cycle. Avoid trimming all hedgerows in the same year, cutting no more than a third of the hedgerow in any year. Leave a minimum of 1m strip of uncultivated land between the hedgerow and cut grass. Pruning shall be carried out at the correct time having regard to the species and maintenance objectives above.

- 3.28 A strip of long grass shall be left at the base of the hedge as rough grassland with arisings removed to further enhance the hedgerow. This shall be cut twice a year in early spring and autumn to a minimum 150mm high.

Medium to Long Term Management

- 3.29 Protection – Remove (remnants of) tree and shrub guards before they start to restrict growth.
- 3.30 Once good establishment of the hedgerow planting areas has been achieved, the density of the planting can be reduced by selective thinning if required.
- 3.31 Continue to weed seasonally.
- 3.32 A review of the hedgerows shall take place to determine if there are any sections that are deteriorating with gaps (of 1m or more), hollow bottoms and die back. Plant any gaps 1m or wider within the hedgerow using 60-90cm whips to match those existing species. Short term maintenance of the gapping up planting shall focus on establishment as above.
- 3.33 Hedgerow trimming shall take place every 3 years on a rotational basis. Trimming of all the hedgerows in one year should be avoided, cutting no more than a third of the hedgerow in any year. The hedgerow should be allowed to grow up to and maintained at 1.8m tall. Hedgerow junctions shall only be trimmed very occasionally in order to provide an alternative habitat.
- 3.34 Sections of new planting should only be lightly trimmed allowing the hedge to increase in size each time.
- 3.35 Hedgerow trimming shall be carried out at the correct time of year having regard to the species and management objective, but shall exclude the months of March – August, hard frosts and the spring flush.
- 3.36 Occasional standard trees shall be left to add diversity to the hedgerow. However, they shall be maintained to a maximum height of 18m to minimise the potential for bird roosting sites. Trees shall be pruned to remove diseased wood or dead/ dying wood to maintain clearances above roads. Pruning shall be in accordance with good horticultural and arboricultural practices.
- 3.37 If the hedgerow requires regenerating or to prevent the hedgerows turning into a line of trees then hedge laying followed by further gapping up could be undertaken following consultation with the Ecologist / Local Wildlife Trust.
- 3.38 Follow the tree and hedgerow work guidelines given above 3.13-3.14.
- 3.39 Continue to leave a strip of long grass at the base of the hedgerow and cut twice a year with arisings removed.

Proposed Specimen Trees

Management Aims and Objectives

- 3.40 The aftercare of the trees should be tailored to their size requirements and ensure a safe and healthy development whilst promoting their wildlife value.
- 3.41 To maintain health and safety requirements to all publicly accessible areas of public open space for all residents and visitors.
- 3.42 Maintain bark mulch and weed control.

- 3.43 To control the spread of pests and diseases.

Management Prescriptions

Short Term Management

- 3.44 Refer to 'General Soft Landscape Operations' below for general maintenance prescriptions.
- 3.45 In late autumn of each year the site will be inspected and a programme of work for the next twelve months agreed. Actions required might include practices such as formative pruning and replacement of stock.

Medium to Long Term Management

- 3.46 Continue to monitor and act upon findings to ensure the aims and objectives continue to be met. Follow the tree work guidelines given in section 4.

Proposed Bulb Planting

Management Aims and Objectives

- 3.47 Bulb planting should be managed to promote the healthy growth and development of flowers.

Management Prescriptions

Short to Long Term Management

- 3.48 Divide clumps of bulbs as necessary six weeks after flowering. Remove any faded flowers to extend the season and improve the vigour of the bulbs. Deadhead bulbs but allow leaves to die down before removing or cutting back to ground level.
- 3.49 Watering - water as necessary to maintain moist soil conditions during the growing season.
- 3.50 Fertilizer - no feeding should be necessary during the first year. For subsequent years, one or two applications of high potash fertilizer annually will encourage large bulbs to form/promote flower production.
- 3.51 Overcrowded clumps - after the foliage and flowers have died down, lift the bulbs with their leaves on when the soil is moist, using a border or hand fork. Divide clumps of bulbs by hand, trying to avoid damaging the roots. Ideally replant singly, with adequate spacing. Water in thoroughly to settle the roots.
- 3.52 Check regularly for damage or infection and remove as necessary.

Grassland Generally

Grass Maintenance Operations Generally

- 3.53 Maintenance of grass areas will be as described in BS 7370: Part 3, 1991 in suitable weather conditions and shall have the following objectives:
- a. Any shrinkage and/or depressions, bare patches and other failed areas will be rectified in accordance BS 7370-3; if reurfing: Clause 12.2, if reseeding: Clause 12.6.
 - b. Humps, bumps and hollows will be rectified in accordance with BS 7370-3, clauses 12.4 and 12.5, quality and appearance to match the existing.

- c. Prior to any grass cutting operations commencing, all litter and obstructive debris shall be removed.
- d. Fertiliser – Spring and autumn application granular fertiliser shall be applied only as required to help establish a healthy sward. (In March of each year apply a 9/7/7 fertiliser at 35g/m². In September of each year, apply a 3/12/12 fertiliser at 35g/m²). All fertilisers are to be stored and applied in accordance with the manufacturer's instructions. Depending on the vigour and health of the plant, fertiliser applications may be suspended as part of the regular inspection programme. Fertiliser should not be applied to areas of species rich grassland.
- e. No burning, shredding or chipping on site will be allowed.
- f. Generally, allow naturally colonizing species to emerge where appropriate e.g. in low maintenance grass / species rich grassland, but remove invasive 'weed' species.
- g. Within amenity and close mown grass areas prevent the encroachment of large herbaceous or scrub species, keeping amenity grassland areas free of flower stalks and weed species.
- h. Any damage caused during cutting such as trampling, rutting, abrasion or scalping should be repaired at the earliest opportunity to maintain an attractive sward.
- i. Litter and excessive fallen leaves should be removed regularly to maintain a neat appearance.
- j. DO NOT USE mowing machinery or nylon filament rotary cutters closer than 100mm to tree stems. For operations close to stems, use hand tools. N.B. USE OF HAND TOOLS WILL GENERALLY NOT BE REQUIRED IF TREES ARE MULCHED IN ACCORDANCE WITH THE SPECIFICATION AND THIS DEPTH IS MAINTAINED OVER and BEYOND THE RECTIFICATION PERIOD.
- k. Soft edges to seeded areas adjacent to shrub planting beds and HS+ trees are to be cut back to clean straight lines and/or smooth curves as directed by the planting plan geometry. Soil is to be drawn back and mulch topped up as required in compliance with the specification.
- l. Grass should be removed from all hard surfaced areas, paths, pavements and gravel/mowing strips to prevent the build-up of moss/lichen/slippery surfaces/nutrient enrichment.
- m. If standing water occurs, aeration with a spiked roller or other approved implement having tines which penetrate 50-100mm into the soil surface shall be carried out once per month between September and April inclusive on all areas.

3.54 Time of first cut - Mar/Apr after Autumn sowing or Jun/Jul after Spring sowing.

3.55 Monitor grass erosion annually and reinstate damaged or worn areas. Resow failed areas of grassland with original specification seed mix. Protect with temporary fencing until sufficiently established for intended use and water as necessary.

3.56 For bulb planting swathes in grass the frequency of grass cutting is to be adjusted so that the grass can be left to grow longer around the bulbs and is cut a minimum of 6 weeks after the season flowering has finished. Therefore after winter and spring flowering the grass shall be cut from June and after summer flowering from September.

Amenity Grassland

Management Aims and Objectives

3.57 Maintain a safe useable surface for public use.

Management Prescriptions

Short to Long Term Management

- 3.58 Grass areas will be maintained in suitable weather conditions as Category D grass in accordance with the Tables 1, 2 and 6 of BS7370: Part 3 1991, i.e. mown fortnightly to 25mm between April and November with a maximum allowable height of growth of 50mm, but with cuttings removed.
- 3.59 The standards to be achieved for short amenity grass shall be as follows, abstracted from Table 6 of BS7370: Part 3 1991:
- a. Total ground cover (by area) to be at least 80%.
 - b. No stones or hard litter at the surface with a diameter greater than 25mm.

Sports Pitch Grassland

Management Aims and Objectives

- 3.60 Pitch grassland shall be managed more intensively in order to provide a suitable playing surface.
- 3.61 Maintain a safe useable surface for players.
- 3.62 Maintain the pitch markings and goal areas to enable their continuous use.

Management Prescriptions

Short to Long Term Management

- 3.63 Grass areas will be maintained in suitable weather conditions as Category B1 grass in accordance with the Tables 1, 2 and 6 of BS7370: Part 3 1991, i.e. mown weekly to a min. 15mm between April and November with a maximum allowable height of growth of 25mm, with cuttings returned.
- 3.64 The standards to be achieved for shall be as follows, abstracted from Table 6 of BS7370: Part 3 1991:
- c. Total ground cover (by area) to be at least 90%.
 - d. No stones or hard litter at the surface with a diameter greater than 10mm.
- 3.65 Line Markings - All markings should be maintained between the 1st Saturday before 1st August and on the last Friday before 30th April. All markings shall be carried out in accordance with the current requirements of the sports governing body, which may be subject to change during the course of the contract. All angles and lengths should be true and lines straight.
- 3.66 Rolling - The Contractor shall allow for the rolling of all pitches to achieve a level profile and a firm surface, to be carried out each month throughout the playing season timing to be agreed by the CA. This should be carried out with regard to the prevailing weather conditions and not when the ground conditions are unsuitable which may damage the playing surface. This should be carried out using a tractor drawn roller at least 3m wide and weighing between 1000kg and 1500kg.
- 3.67 Aeration - In order to give players, and in particular goalkeepers, a flat dry surface, the Contractor shall be required to aerate all Rugby and Football pitches and cricket outfields using 100mm - 150mm spikes, hollow tines or slit tines at maximum 300mm centres to their full depth, each month throughout the playing season timing to be agreed by the CA. The machine passes must overlap by 300mm on each run. The spiking machinery must be approved by the CA, and works shall only be carried out when ground conditions are suitable, not when the ground is too wet, frosted or covered with snow.
- 3.68 Harrowing - During the playing season the pitch should harrowed monthly to maintain surface levels. Harrowing should be carried out in one pass in one direction longitudinally.

- 3.69 Oversowing – Monitor grass erosion and reinstate damaged or worn areas. Re-sow failed areas of grassland with original specification seed mix between March/April or September/October and repair the goal mouth area with further seeding as required in May / June.
- 3.70 Inspections - All sports pitches shall be inspected by the contractor during line marking operations, this should be undertaken regularly during the playing season (usually on a Thursday or a Friday), and made clean and tidy and ready for play. Inspection sheets should be sent to the CA before 12pm on Friday. At each inspection:
- Repair any divots made from matches / training sessions.
 - Collect and remove any stones, litter and/or other debris found on the pitches or closely adjacent.
 - Remove glass or other harmful objects immediately, whether they are discovered during regular inspections or during other visits or brought to the attention of the Contractor by the CA.
 - Replace ground socket covers and report immediately to the CA.

General Soft Landscape Maintenance Operations

- 3.71 The following describes (but may not be limited to) the type of operations the maintenance contractor may reasonably be expected to undertake during the course of his duties on site. Additional works may be as instructed by the MC at their specific request.

General Pruning Operations

- 3.72 Pruning operations for trees and shrubs shall have the following objectives:
- To remove any dead, dying or diseased wood, rubbing/crossing/broken branches and stems, and/or potentially weak or tight forks.
 - To maintain clearances above and within footpaths, seating/car parking/grassed areas and building lines to a height of 2.5m.
 - To achieve satisfactory shape and extent of growth: trees, well balanced head suitable to form of tree whether ex-current or de-current; shrubs, healthy bushy growth that promotes ornamental features such as flowers, fruit, autumn/stem colour, etc.
 - To remove suckers or other unwanted growth.
 - As the trees mature, lifting and thinning of crowns may become necessary.
- 3.73 Prune in accordance with good horticultural and arboricultural practice at the appropriate time of year having regard to the species taking care to observe the following objectives:
- When removing branches do not damage or tear the stem or bark.
 - Keep wounds as small as possible and cut cleanly back to sound wood.
 - Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
 - Prune larger branches neither flush, nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide in accordance with BS 3998: 2010, Section 7, taking care to remove in small sections and lower to ground with ropes and slings.
 - Formatively prune by means of thinning, trimming and carefully shaping each specimen appropriately to species, location, season, and stage of growth, in order to leave a well-balanced natural appearance.
 - Use clean sharp secateurs, hand saws or other approved tools and trim off ragged edges of bark or wood with a sharp knife.
 - Do not prune: young trees during the late winter/early spring sap flow period; woodland whips or feathered trees, leave to attain full height; hedge plants possessing a leading shoot best left

to obtain their planned height (e.g.) *Fagus sylvatica*, *Carpinus betulus*, *Taxus baccata* *Thuja* spp., most columnar conifers and *Ilex* spp. However, lateral branches of these species should be cut back moderately to ensure a dense habit.

General Landscape Softworks Maintenance Operations

3.74 All newly planted landscapes and plant materials therein, shall be managed in accordance with the prescriptions identified below:

- a. *Replacements* – At the end of the growing season, check all plants and remove all dead foliage, dead wood and broken or damaged branches and stems.
- b. Any dead or dying plants will be replaced with equivalent stock and planted during the next planting season replaced for five years from scheme completion for planning compliance. Continual failures of a particular species at a particular locality may suggest general unsuitability for the location. Thereafter plant and replace to ensure continuity of cover. All plant stock to be sourced from a supplier certified to be pest and disease free and in accordance with Plant Passport / Animal and Plant Health Agency (APHA) and current DEFRA requirements. Supplier information / certification to be retained for a period of not less than 12 years and must be made available upon request.
- c. *Plant Support Systems and Protection* – Stakes, ties and guards will be checked regularly and adjusted, repaired or replaced and removed upon successful establishment. Stakes will be removed following a test on sample trees. To test whether trees are root-firm, sample trees within a group (say 10%) shall be untied in spring and monitored over the next growing season. When firmness is proven, remove all remaining stakes and ties, and fill in resulting post holes and remove surplus materials. Where stakes and ties are still necessary, further inspections will be required to adjust and maintain them in good order, ensuring that stems are not damaged.
- d. *Pest and disease* - Treat as necessary/appropriate. Monitor and act up on findings. Where planting shows signs of stress (chlorosis, etc.), identify any underlying problems or signs of stress, disease or damage and take appropriate remedial action. In some instances it may be necessary to use alternative species better suited to the local conditions.
- e. *Watering* – The Contractor shall ensure that there is no delay in the execution of watering by obtaining all necessary licences and permissions from water companies for the efficient execution of watering. The Contractor shall water all planting undertaken under the Contract, at the frequency necessary to ensure establishment and survival, until all planting works are completed. Plant materials shall be watered immediately after planting. Carry out regular feeding and watering throughout the growing season to promote healthy growth, taking care not to over water or over feed using a fine hose or sprinkler until full depth of topsoil is saturated. Extra Heavy standard/semi mature trees are to be watered weekly from the beginning of the growing season (April/May) and throughout the summer, during the first year of establishment. This can be adjusted depending on the weather. During the establishment period all trees are to be monitored by the management team for signs of die back and dehydration. The CA shall be informed of any apparent signs of overdue stress. Additional watering may be required in periods of drought/dry weather to ensure plant survival. After 10 continuous days without rain during the growing season the trees shall be watered twice a week as above.
- f. *Re-firming* – Ensure that the plant materials remain firmly bedded after strong winds, frost heave and other disturbances. Re-firm by treading around base.
- g. *Weeding* – General: Remove weeds entirely, including roots with minimum quantity of soil and disturbance to plants. Trees: Weed 1m diameter around each plant. Maintain as required to achieve an 80% weed free area to the base of each tree for a period of 5 years, to ensure the trees satisfactory establishment and development. Shrubs and hedges: Base of plant materials to be kept clear of all pernicious weeds and invasive species by hand

- weeding/spraying/cultivation on a monthly basis. Ensure mulch mats are replaced or repaired as necessary. Remove weeds encroaching mulch mats or coming through planting split/hole. Remove weeds entirely, including roots with minimum quantity of soil and disturbance to plants.
- h. *Mulching* – remove all weeds and maintain mulch to 75mm, by topping up twice a year until superfluous: 1m diameter to tree planting; retained within planting bed for ornamental shrubs and hedging. Rake to a neat, clean condition.
 - i. *Fertiliser* –Apply late winter/spring granular fertiliser (a 20:10:10 spring fertiliser at 30g/m²) to ornamental plant stock [only as required] to help establish healthy plant stock. All fertilisers are to be stored and applied in accordance with the manufacturer’s instructions. Depending on the vigour and health of the plant, fertiliser applications may be suspended as part of the regular inspection programme.
 - j. *Weeds and Herbicide Application* - For all other grassland, spot removal of perennial weeds or cutting of annual weeds and invasive species will be carried out by cutting, hoeing or hand pulling, with the use of chemicals kept to a bare minimum. If significant patches of persistent weed species (including coarse grasses such as couch or False Oat Grass) occur, an approved folia-acting systemic translocated herbicide or lawn herbicide as appropriate can be used. A selective herbicide (for general application) or non-selective herbicide (for spot treatment) shall be applied in accordance with the manufacturer's instructions taking care not to damage surrounding plants and grass from spray drift. A glyphosate based product approved by Natural England and the Environment Agency as suitable on weeds in or near water bodies can be used (Refer to “Guidelines for the use of herbicides on weeds in or near waterbodies” (PB2289) 1995; this document is available from the Health and Safety Executive (HSE) and prior to commencing contractors should check for updates on approved products). Comply with all current COSHH and Control of Pesticides Regulations guidelines and/or requirements.
 - k. *Burning of arisings* - not permitted on site at any time.
 - l. *Mammalian pest control* - to be completed by a specialist firm with suitable experience in dealing with the particular pest.
 - m. *Removal of arisings* – any infected (diseased or pest) prunings or timber arisings shall be removed off site immediately after cutting and burned or buried at a depth of no less than 2.0m in a location to be approved in writing by the Overseeing Organisation, except diseased arisings affected by diseases described in Arboriculture Research Notes or Arboriculture Research and Information notes issued by the Arboricultural Advisory and Information Service, which shall be dealt with in accordance with the advice published in these notes. Healthy arisings shall be removed from site to a suitable composting facility or utilised as windrowed brush / creation of reptile hibernacula at the specific direction of the Project Ecologist.
 - n. *Litter clearance* - The contractor shall maintain the site to a clean and litter free standard by removing all litter at intervals highlighted within the Schedule.
 - o. *Cleanliness* - The site is to be maintained in a clean and tidy manner after any maintenance operations. All arisings are to be removed from hard surfaces so as to avoid any potential slip hazard. Collect accumulations of drifted leaves from the vicinity and from planting beds.

Management of Proposed Hard Landscape Treatments

- 3.75 This incorporates all ‘publicly accessible/accessible to all’ hard surfacing and boundary treatments (where applicable) including paving, street furniture and other publicly accessible structures and / or features.

Surfacing

General Management Prescriptions

- 3.76 Standards of maintenance and procedures shall be generally in accordance with BS7370 Part 2: 1994 “Recommendations for the Maintenance of Hard Areas (excluding sports surfaces)” category C.

- a. Weekly inspections to determine the need for maintenance operations.
- b. Sweeping and litter collection – every 7-14 days.
- c. Stain removal – complete within 7-14 days.
- d. Remove leaves from paths, hard surfaces and play areas upon leaf fall.
- e. Weed and moss growth control – so that it doesn't exceed 3% of paved area and 10% of the length of joints within it. Spot spray weeds with non-residual herbicide to remove pernicious weeds. Use strictly in accordance with manufacturer's instructions and comply with all current COSHH and Control of Pesticides Regulations guidelines or requirements.

Kerbs and Edge Restraints

- 3.77 Maintenance of all the hard surfaces shall include making good the kerb or edge restraint. If any such units are loose, broken or out of line or level by 6mm or more, the restraint shall be lifted and reset to the original alignment replacing units as necessary.

Asphalt Paving

- 3.78 The tarmacadam should be identified as 'bituminous surfacing' within Table A1 inspection and maintenance checklist.
- 3.79 The weeds should be removed by the application of an approved herbicide once a year and regrowth spot treated as necessary.
- 3.80 Repair asphalt as required to the original specification.

Reinforced Porous Gravel Surfacing

- 3.81 Repair any damaged cells by lifting as required in accordance with the manufacturer's recommendations.

Furniture & Boundary Treatments

General Management Prescriptions

- 3.82 Standards of maintenance and procedures shall be generally in accordance with BS7370 Part 2: 1994 "Recommendations for the Maintenance of Hard Areas (excluding sports surfaces)".
- 3.83 The contractor should maintain visual appearance and safety of all boundary treatments and structures in accordance with the original design intention.
- 3.84 The Contractor shall:
- a. Inspect for sign of splits and splinters. Splits over 5mm to be filled. Splinters to be sanded out and re-stained/re-treated in accordance with the original specification or manufacturer's guidance where required.
 - b. All fixings to be checked regularly and re-tightened if necessary.
 - c. Carry out regular inspection of the timber kneerail and bollards for weathering and ensure that any mechanisms function properly.
 - d. Apply clear wood preservative every 5 years to softwood fence and gates as necessary to ensure adequate protection.

- 3.85 Cleaning of bollards and other structures shall form part of the routine maintenance programme. Water and mild detergent should be used for washing down and the recommendations in Table 4 in BS 7370: Part 2 for specific stains and graffiti, etc.
- 3.86 Refer to the original manufacturer for specific guidance on repairs.
- 3.87 Where defective equipment cannot be repaired immediately it shall be cordoned off with high visibility hazard tape and a warning sign.

4. LANDSCAPE MANAGEMENT PLAN SCHEDULE

2832 WHITE POST ROAD, BODICOTE															S106 PLANNING											
OBLIGATIONS - ON-SITE OUTDOOR SPORTS FACILITIES REPORT, LANDSCAPE MANAGEMENT PLAN SCHEDULE																										
ITEM		ROUTINE							FREQUENCY																	
Suggested month	Alternative months	DAILY	WEEKLY	FORTNIGHTLY	MONTHLY	SEASONALLY	ANNUALLY	X-YEARLY	AS REQUIRED	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH					
1st growing season only		2nd growing season only and beyond							SPRING			SUMMER			AUTUMN			WINTER								
ST=Short term MT=Med. term LT=Long term																										
REF	GENERAL																									
	SITE INSPECTION & MONITORING	*																								
	ANNUAL LANDSCAPE MANAGEMENT & MAINTENANCE REVIEW						*																			
	ANNUAL TREE SAFETY SURVEY WITH ADDITIONAL INSPECTION AS REQUIRED FOLLOWING EXTREME WEATHER						*	*																		
REF	DURATION	SOFT LANDSCAPE																								
	PROPOSED NATIVE FIELD HEDGEROW PLANTING																									
	ST	Water plants as necessary for the first year	*																							
	ST	Heavy prune hedge immediately after planting to encourage bushy side growth					*	*																		
	ST-MT	Check and replace mulch mats or top up loose mulch as required				*																				
	ST-MT	Check and repair / replace ties, guards and canes. Remove as required (medium term)				*																				
	ST-MT	Inspect and refirm planting as required				*																				
	ST	Inspect for weed growth and hand weed as necessary (first 3 years)				*																				
	ST-LT	Strim, cut down or mow hedgerow margin to create a rough grassland habitat					*																			
	MT-LT	Inspect for weed growth and hand weed as necessary					*																			
	ST-LT	Inspect and treat any pests and diseases																								
	ST-LT	Replace dead or damaged plants																								
	ST-LT	Inspect hedgerow after extreme weather to ensure it is safe																								
	MT-LT	Cut hedge in subsequent seasons on a 3 year rotation and cut no more than a third of the hedgerow at one time.					*																			
	MT	Reduce density of planting by selective thinning on rotation once good establishment of planting achieved					*	*																		
	LT	Lay hedgerow to reduce gaps and prevent turning into a line of trees						*																		
	LT	Plant up gaps in the hedgerow using similar local species - Deciduous						*																		

ST=Short term MT=Med. term LT=Long term			DAILY	WEEKLY	FORTNIGHTLY	MONTHLY	SEASONALLY	ANNUALLY	X YEARLY	AS REQUIRED	SPRING			SUMMER				AUTUMN			WINTER		
											APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	
INDIVIDUAL TREES - NEWLY PLANTED																							
ST		During dry periods water trees twice a week as necessary		*twice						*													
ST		Individual trees - water once a week during the first year		*																			
ST		Individual trees - outside of growing season only water to establish healthy growth								*													
ST		Monitor tree growth when watering for signs of overdue stress and overwatering		*																			
ST		Inspect and top up mulch as required				*																	
ST		Inspect for weed growth and hand weed as necessary				*																	
ST-MT		Inspect and refirm planting as required				*																	
ST-MT		Check and repair / replace tree stakes, ties, guards and canes. Remove as required (medium term)				*																	
ST-MT		Remove snow from light limbed trees to prevent limbs breaking and branches splaying								*													
MT-LT		Inspect for weed growth and hand weed as necessary					*																
ST-LT		Annual review visit to determine any required tree work, particularly close to public areas						*															
ST-LT		Replace dead or damaged plants - Evergreen								*													
ST-LT		Replace dead or damaged plants - Deciduous								*													
LT		Bat Survey undertaken prior to any tree works or tree pruning on mature trees								*													
LT		Prune trees and other remedial tree work - bats present								*													
LT		Prune trees and other remedial tree work - no bats present								*													
BULB PLANTING																							
MT-LT		ALL - Lift and divide established clumps when overcrowded 6 weeks after flowering (depending on flowering season)						*		*													
ST-LT		ALL - Cut bulbs to ground level/ remove once leaves have died down and have lifted/divided as necessary (depending on flowering season)						*		*													
ST-LT		WINTER & SPRING FLOWERING ONLY- Cut grass around bulbs at least 6 weeks after spring flowering has finished or the foliage is turning yellow (1st June onwards)					*																

ST=Short term MT=Med. term LT=Long term			DAILY	WEEKLY	FORTNIGHTLY	MONTHLY	SEASONALLY	ANNUALLY	X YEARLY	AS REQUIRED	SPRING			SUMMER			AUTUMN			WINTER		
											APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH
ST-LT		SUMMER FLOWERING ONLY- Cut grass around bulbs at least 6 weeks after flowering has finished or the foliage is turning yellow (September onwards)					*															
ST-LT		AUTUMN FLOWERING ONLY- Cut grass around bulbs with blades set high enough to avoid shoots and stop mowing once shoots are too tall to avoid blades					*															
GRASSLAND - AMENITY (SHORT)																						
ST-LT		Pick litter, stones larger than 25mm dia prior to cutting								*												
ST		Water as necessary during the summer								*												
ST		Cut first time after sowing to 25-50mm high								*												
ST-LT		Cut subsequently to 25mm high (max allowed height 50mm)			*																	
ST-LT		If bulbs in grass area cut grass as per BULBS section																				
ST-LT		Roll grassland						*		*												
ST-LT		Aerate grassland				*				*												
ST-LT		Inspect for weed growth and hand weed or cultivate as necessary					*			*												
ST-LT		Inspect for weed growth and apply herbicide as necessary								*												
ST-LT		Oversow grass as necessary following final cut and cuttings removed						*		*												
ST-LT		Repair eroded areas by rotovating, adding topsoil and reseeding								*												
ST-LT		Apply a spring fertiliser								*												
ST-LT		Apply a winter fertiliser								*												
GRASSLAND - SPORTS PITCHES																						
ST-LT		Pick litter, stones larger than 10mm on each inspection		*																		
ST-LT		Repair divots		*																		
ST-LT		Remove litter and harmful objects		*																		

ST=Short term MT=Med. term LT=Long term			DAILY	WEEKLY	FORTNIGHTLY	MONTHLY	SEASONALLY	ANNUALLY	X YEARLY	AS REQUIRED	SPRING			SUMMER			AUTUMN			WINTER		
											APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH
ST		Water as necessary during the summer								*												
ST		Cut first time after sowing to 25-50mm high								*												
ST-LT		Cut subsequently to 15mm high (max allowed height 25mm)		*																		
ST-LT		Initial markings						*														
ST-LT		Maintain line markings / over mark		*																		
ST-LT		Roll grassland				*																
ST-LT		Aerate grassland				*																*
ST-LT		Harrow grassland				*																
ST-LT		Inspect for weed growth and hand weed or cultivate as necessary					*															
ST-LT		Inspect for weed growth and apply herbicide as necessary							*													*
ST-LT		Oversow grass as necessary						*														*
ST-LT		Repair goal mouth areas by rotovating, adding topsoil and reseeding								*												*
ST-LT		Apply fertiliser as required									*											*
REF	DURATION	HARD LANDSCAPE																				
SURFACES																						
		General																				
ST-LT		Inspect surfacing to determine need for maintenance operations		*																		
ST-LT		Litter Collection, \remove graffiti, stains, sweeping etc.			*																	
ST-LT		Inspect and repair/ reinstate kerbs, edging and paved surfaces						*														
ST-LT		Inspect for weed growth and moss and hand weed as necessary					*															
ST-LT		Inspect for weed growth and moss and apply herbicide as necessary							*													
ST-LT		Remove arising following herbicide treatment						*														
ST-LT		Check surface for damage or settlement and repair as required								*												

ST=Short term MT=Med. term LT=Long term			DAILY	WEEKLY	FORTNIGHTLY	MONTHLY	SEASONALLY	ANNUALLY	X YEARLY	AS REQUIRED	SPRING			SUMMER			AUTUMN			WINTER		
											APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH
		Asphalt Paving																				
ST-LT		Repair and recolour paving to the original specification								*												
		Reinforced Porous Gravel Surface																				
ST-LT		Inspect the reinforcement grids and securing mechanism and repair as necessary				*				*												
FURNITURE & BOUNDARY TREATMENTS																						
ST-LT		Wash with water and mild detergent				*				*												
ST-LT		Inspect fixtures and fixings and schedule repairs							*													
ST-LT		Apply a wood preservative to timber components where not pressure treated								5x												

5. GENERAL MAINTENANCE AND MANAGEMENT PROCEDURE AND MONITORING

Responsibilities

- 5.1 The management and maintenance of the On-Site Outdoor Sports Facilities will be the responsibility of the Landscape Contractor during the maintenance period in the first year following practical completion.
- 5.2 Beyond the first year the responsibility for management will fall to a Management Company (MC) appointed by Barratt David Wilson Homes. They will be responsible for co-ordinating all management and maintenance operations in accordance with the objectives and prescriptions in this report. Any revisions would be undertaken prior to handover to the MC.
- 5.3 All management contracts will be agreed and reviewed by the management company.

Funding

- 5.4 Future management will be fully funded through a service charge to be collected from each property owner who each become a member of the MC when they purchase a property and are obligated to pay a service charge thereafter for the maintenance of the On-Site Outdoor Sports Facilities. The service charge is used to administer the MC and to fulfil its maintenance obligations and would be set out in the legal transfer documents for each property.

Procedure and Monitoring

- 5.5 The management company will control general landscape maintenance operations through an Annual Management and Maintenance Review (AMMR) undertaken at the end of October. It is suggested that this process can be used both prior to and post adoption and can be agreed with the Local Authority.
- 5.6 Prior to the AMMR, an inspection of the On-Site Outdoor Sports Facilities will be carried out to inform the AMMR of potential future action required.
- 5.7 The purpose of the annual autumn review is to provide a singular point in time whereby precedents and priorities for management and maintenance requirements pertaining to the development can be decided, broadly, for the year ahead, at a time (should more immediate need for rectification of defects be required) when impacts upon vegetation and ecology can be minimised as they enter their dormant phase over the winter months.
- 5.8 The inspection shall determine the nature and extent of the following and be recorded on the Risk Register (RR) (timing as Management Review):
- a. General appearance and condition of existing and proposed plant material and tree stock for planting disease, damage or health.
 - b. Vandalism.
 - c. General appearance and condition.
 - d. Any invasive species.
 - e. Any evidence of protected species.
 - f. Works required under the AMP.
- 5.9 Completion of the risk register (RR) by the Contractor should be undertaken by the contractor's onsite representatives.

- 5.10 Items brought to the MC's attention, through the process of monitoring and recording on the Risk Register or through third parties that identify and place members of the general public at medium to high risk, should be actioned immediately rather than waiting for the AMMR.
- 5.11 It is proposed that the timing of the RR be discussed at the AMMR to allow for adjustment as required by site conditions (including after major weather events such as storms, high winds, snowfall etc.) and the MC's Public Liability Insurance policies. If required, the frequency of items within the RR would be revised (not less than annually), to better manage the risk to the public. Forthcoming maintenance operations would therefore be adjusted accordingly.
- 5.12 AMMR's will continue to take place beyond and into the medium and long-term timeframes. An assessment of the prevailing situation and conditions on site will determine the need for any further changes to the management plan or operations.
- 5.13 Safety issues reported by the general public shall also be investigated as soon as practicably possible and remedial works undertaken as necessary. Annual reviews of tree planting shall take place in October/November prior to tree work being carried out.

Report to the MC

- 5.14 A reporting, booking in and out procedure and pro-forma are to be agreed with the client/MC prior to the commencement of any maintenance contract and/or works in order to ensure proper compliance with procedures on site and Health and Safety legislation.

Management Review

- 5.15 Recognise, acknowledge and act upon any items arising from monitoring by amending the maintenance operations listed above or by instructing agreed and discreet works packages.



S106 KEY
S106 AREA

Status
PLANNING

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Project
WHITE POST ROAD, BODICOTE

Drawing Title
S106 - ON-SITE OUTDOOR SPORTS FACILITIES AREA

Scale 1:1000	Sheet Size A1	Date MAR 2020
Client Ref. -	Drawing Ref. 2832-4-5	Drawing No. DR-5703
		Status S4-P1

Drawing Revision

Rev.	Date	Description	DWN	CKD
P1	09/03/2020	First issue.	LT	PG

Notes

Related Drawings: S1A Drawing based on 2832-2-5000 LANDSCAPE MASTERPLAN

Issue: Drawn by David Jarvis Associates Limited (CROWN COPYRIGHT). ALL RIGHTS RESERVED 2020 LICENCE NUMBER 0100031. This drawing is for planning purposes only. Do not use this drawing for construction. The information contained in the drawing should be used as a guide to the final forms and finishes of the landscape scheme. Any revisions to be approved by the Client and Local Authority.

Setting out: Do not take this drawing, lay down dimensions only.

Setting out: refer to Engineers for information regarding setting out. In the event of discrepancy refer to Engineers in the first instance.

Survey: Original survey provided by the Client.

Services: Where possible these are identified on the drawings but, for the avoidance of doubt all services/utility locations should be considered indicative until identified on site. To ensure these services / utilities shown are current refer to the original survey provider or utilities designer or Client for confirmation and further information regarding assessments. In the event of new services being installed refer to the appointed Engineer. It is recommended that board warning tape (space electric cable/danger services) to be installed over all service routes (to remain on site) to current BS guidelines (BS7671).

Lighting: Refer to lighting engineer drawings.

Planting: Plant species are selected and located in line with consideration of the site conditions, NIMC guidelines and discussions with the Local Authority and design team. All plants and planting procedure to conform to the David Jarvis Associates Limited landscape Specifications that will accompany the Construction Issue drawings. No species or plant location to be varied without prior consent of the Landscape Architect.

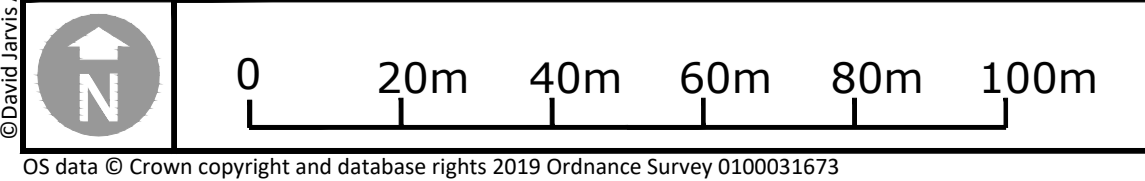
Bioregistry: All plant stock to be sourced from a supplier certified to be pest and disease free and in accordance with Plant Passport / Animal and Plant Health Agency (APHA) and current DEFRA requirements. Supplier information / certification to be retained for a period of not less than 12 years and must be made available upon request.

Foundations: Developers / Contractors to ensure that all foundations (building and external walling) are designed and constructed to take into account, at the time of installation, any existing or proposed trees, buildings or other structures on the site or adjacent to the site during the previous 15 years. For this purpose the developer / contractors will submit all relevant details to the authority along with the Building Regulations Certificate.

Design Levels: Refer to Engineers where design levels are not shown.

OSDs: Drawings to be read in conjunction with Designers risk assessment. Potential risks above that of those associated with the general construction typical to the drawing are identified below;

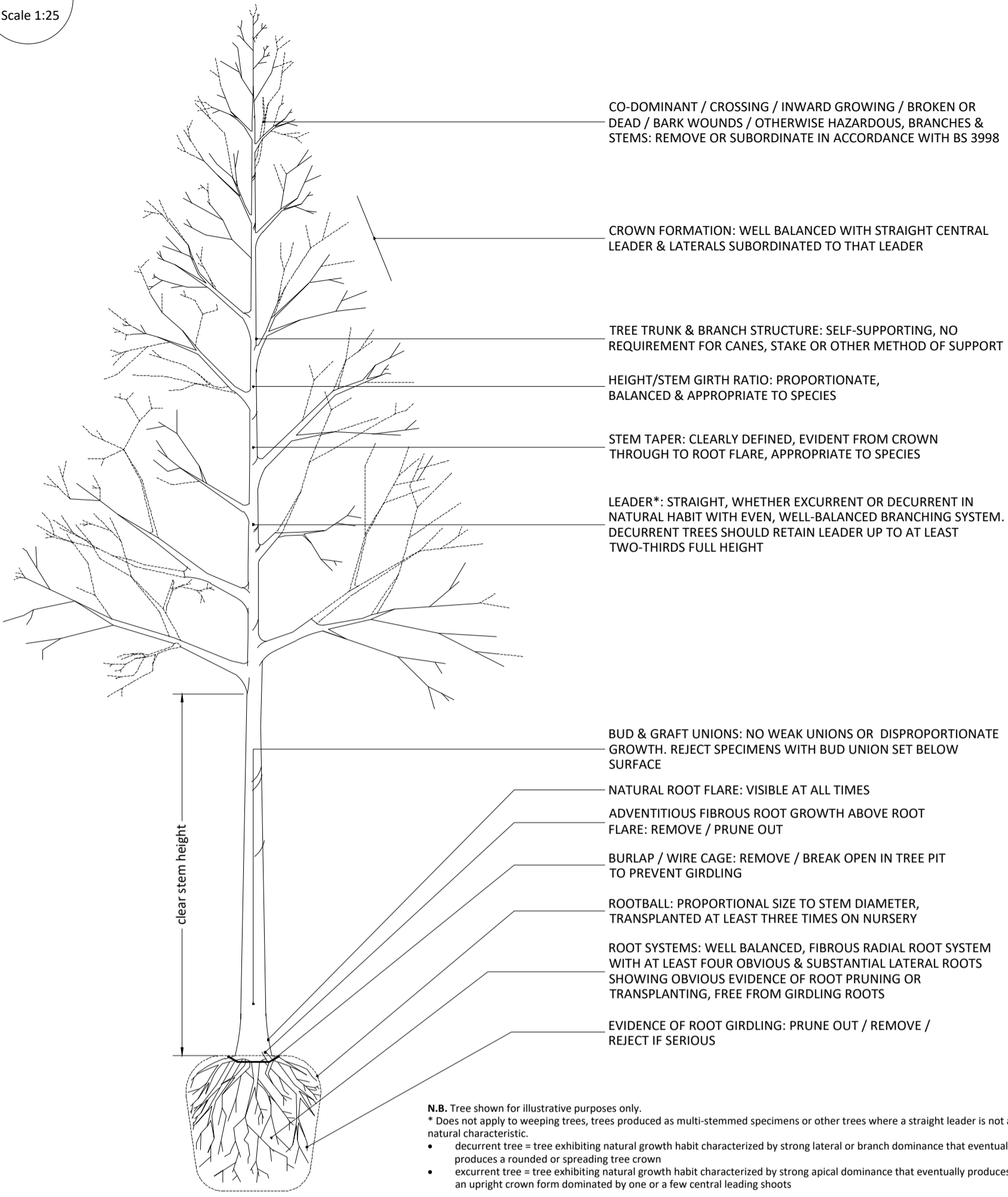
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1. TREE STOCK, GENERALLY

Scale 1:25



CO-DOMINANT / CROSSING / INWARD GROWING / BROKEN OR DEAD / BARK WOUNDS / OTHERWISE HAZARDOUS, BRANCHES & STEMS: REMOVE OR SUBORDINATE IN ACCORDANCE WITH BS 3998

CROWN FORMATION: WELL BALANCED WITH STRAIGHT CENTRAL LEADER & LATERALS SUBORDINATED TO THAT LEADER

TREE TRUNK & BRANCH STRUCTURE: SELF-SUPPORTING, NO REQUIREMENT FOR CANES, STAKE OR OTHER METHOD OF SUPPORT

HEIGHT/STEM GIRTH RATIO: PROPORTIONATE, BALANCED & APPROPRIATE TO SPECIES

STEM TAPER: CLEARLY DEFINED, EVIDENT FROM CROWN THROUGH TO ROOT FLARE, APPROPRIATE TO SPECIES

LEADER*: STRAIGHT, WHETHER EXCURRENT OR DECURRENT IN NATURAL HABIT WITH EVEN, WELL-BALANCED D BRANCHING SYSTEM. DECURRENT TREES SHOULD RETAIN LEADER UP TO AT LEAST TWO-THIRDS FULL HEIGHT

BUD & GRAFT UNIONS: NO WEAK UNIONS OR DISPROPORTIONATE GROWTH. REJECT SPECIMENS WITH BUD UNION SET BELOW SURFACE

NATURAL ROOT FLARE: VISIBLE AT ALL TIMES

ADVENTITIOUS FIBROUS ROOT GROWTH ABOVE ROOT FLARE: REMOVE / PRUNE OUT

BURLAP / WIRE CAGE: REMOVE / BREAK OPEN IN TREE PIT TO PREVENT GIRDLING

ROOTBALL: PROPORTIONAL SIZE TO STEM DIAMETER, TRANSPLANTED AT LEAST THREE TIMES ON NURSERY

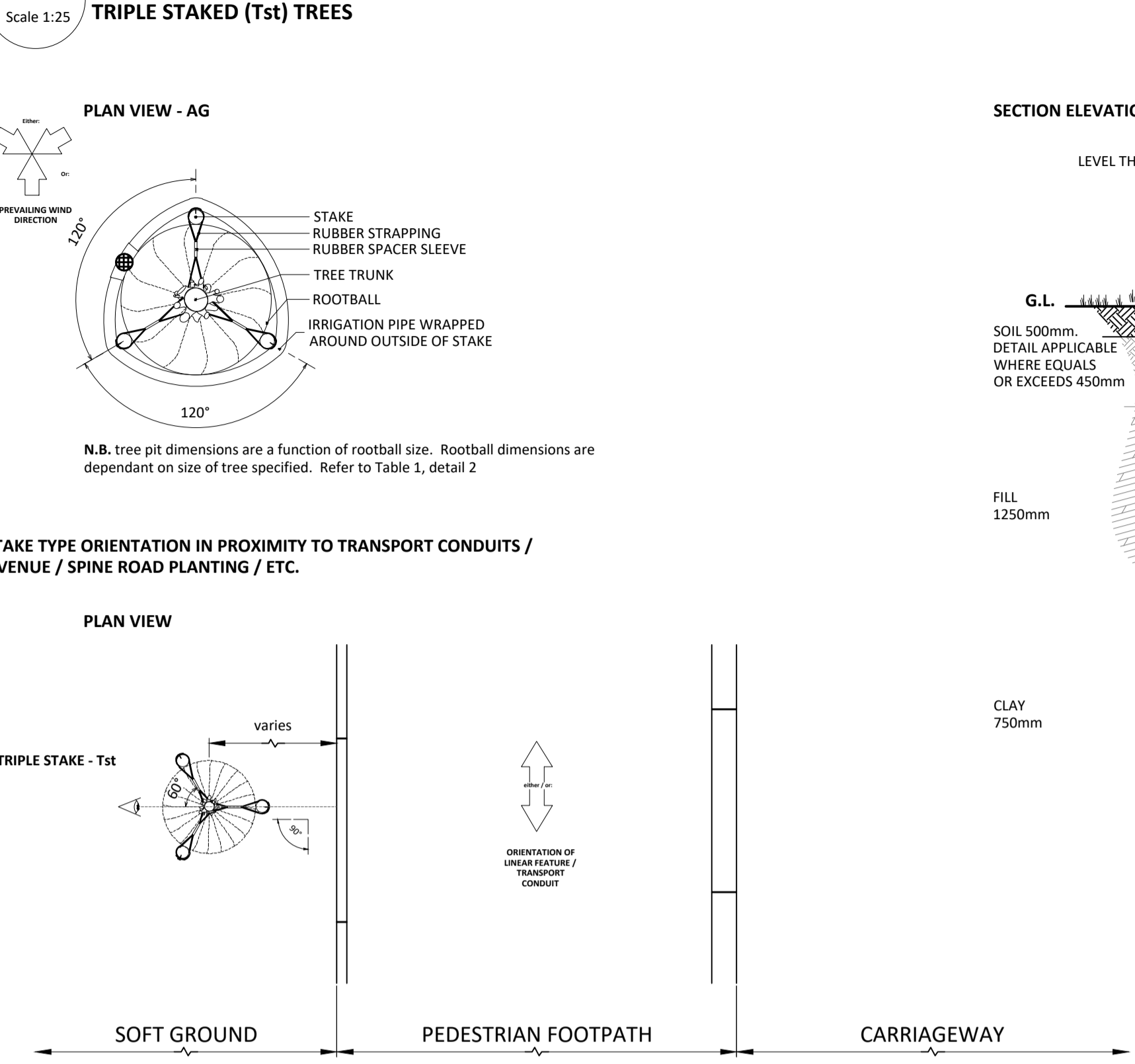
ROOT SYSTEMS: WELL BALANCED, FIBROUS RADIAL ROOT SYSTEM WITH AT LEAST FOUR OBVIOUS & SUBSTANTIAL LATERAL ROOTS SHOWING OBVIOUS EVIDENCE OF ROOT PRUNING OR TRANSPLANTING, FREE FROM GIRDLING ROOTS

EVIDENCE OF ROOT GIRDLING: PRUNE OUT / REMOVE / REJECT IF SERIOUS

N.B. Tree shown for illustrative purposes only.
 * Does not apply to weeping trees, trees produced as multi-stemmed specimens or other trees where a straight leader is not a natural characteristic.
 • decurrent tree = tree exhibiting natural growth habit characterized by strong lateral or branch dominance that eventually produces a rounded or spreading tree crown
 • excurrent tree = tree exhibiting natural growth habit characterized by strong apical dominance that eventually produces an upright crown form dominated by one or a few central leading shoots

3. ABOVE GROUND SUPPORT TRIPLE STAKED (Tst) TREES

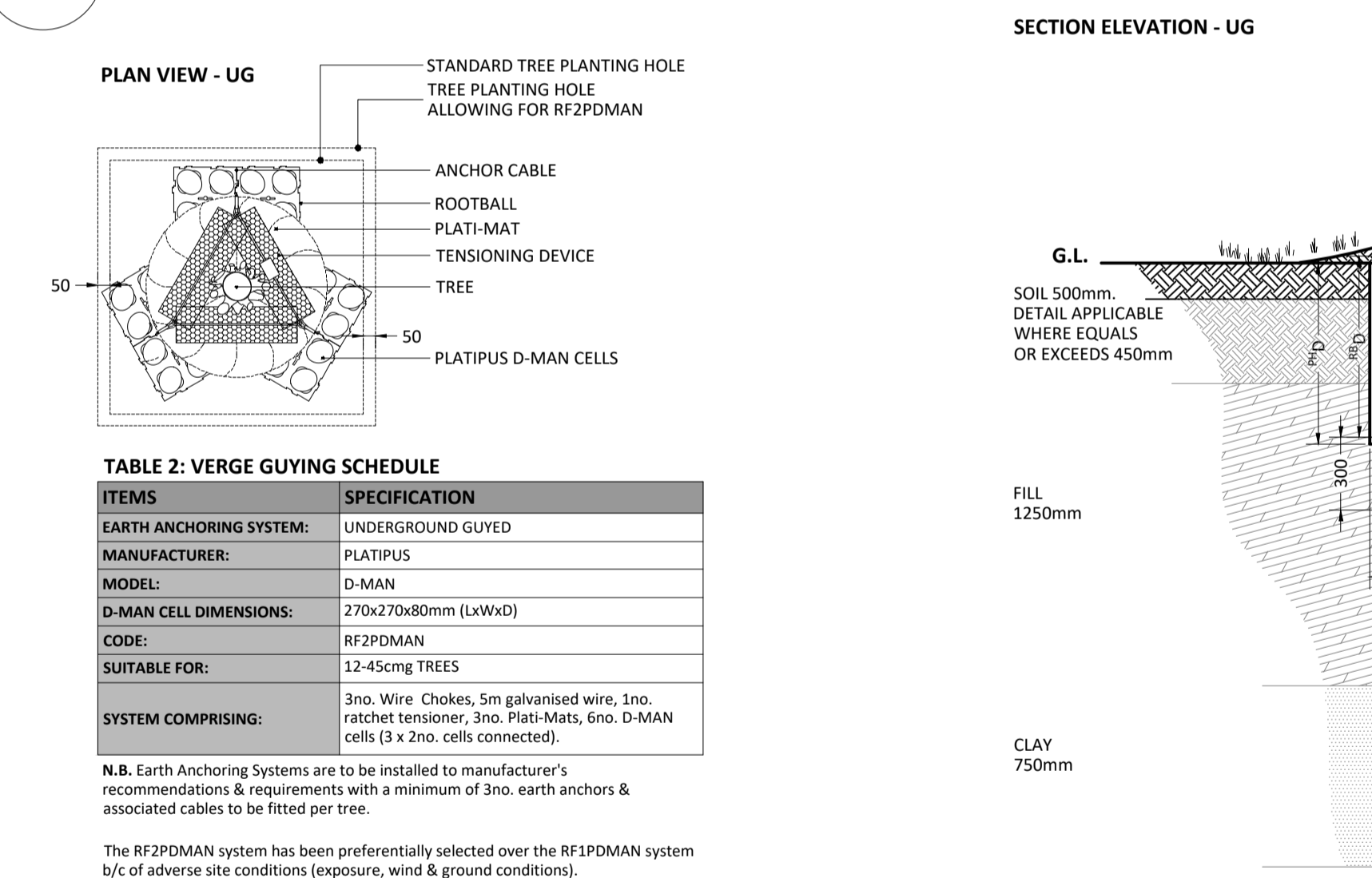
Scale 1:25



N.B. tree pit dimensions are a function of rootball size. Rootball dimensions are dependant on size of tree specified. Refer to Table 1, detail 2

4. BELOW GROUND TREE SUPPORT UNDERGROUND GUYED (UG) TREES

Scale 1:25



ITEMS	SPECIFICATION
EARTH ANCHORING SYSTEM:	UNDERGROUND GUYED
MANUFACTURER:	PLATIPUS
MODEL:	D-MAN
D-MAN CELL DIMENSIONS:	270x270x80mm (LxWxD)
CODE:	RFP2DMAN
SUITABLE FOR:	12-45cm TREES
SYSTEM COMPRISING:	3no. Wire Chokes, 5m galvanised wire, 1no. ratchet tensioner, 3no. Plati-Mats, 6no. D-MAN cells (3 x 2no. cells connected)

N.B. Earth Anchoring Systems are to be installed to manufacturer's recommendations & requirements with a minimum of 3no. earth anchors & associated cables to be fitted per tree.
 The RFP2DMAN system has been preferentially selected over the RFP1DMAN system b/c of adverse site conditions (exposure, wind & ground conditions).

2. GENERAL TREE PLANTING PRINCIPLES

Scale 1:25

TREE SUPPORT SYSTEMS & IRRIGATION MEASURES OMITTED FOR CLARITY

TREE PIT: PLAN VIEW

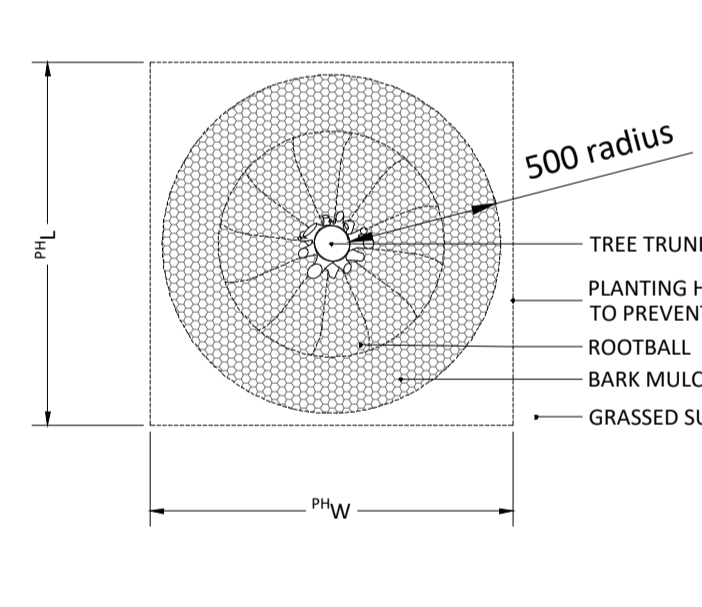
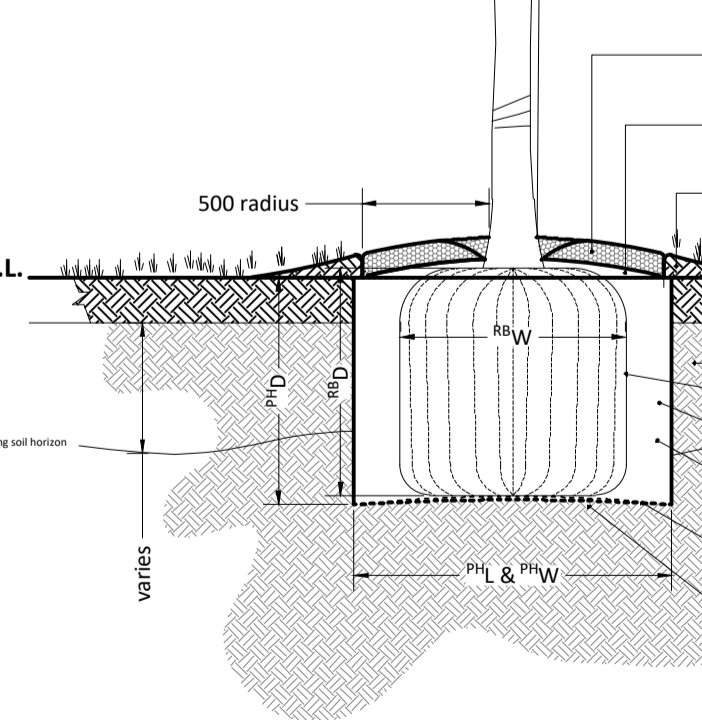


Table 1: TREE PIT DIMENSIONS

FORM	GIRTH	DIMENSIONS	ROOTBALL	PLANTING HOLE DIMS
		(^{min} G) (^{min} Dp)	(^{min} L) (^{min} W) (^{min} D)	(^{min} L) (^{min} W) (^{min} D)
LS	6-8	400 300	700 700	300 300
S	8-10	400 300	700 700	300 300
SSe	10-12	400 400	700 700	400 400
H	14-16	500 400	800 800	500 500
EH	14-16	600 500	900 900	500 500
H	16-18	600 500	900 900	500 500
H	18-20	600 500	900 900	500 500
SM	20-25	750 500	1050 1050	750 750
SM	30-35	1000 1000	1300 1300	1000 1000

where: ^{min}G = Rootball diameter, ^{min}Dp = Rootball depth, ^{min}L = Planting Hole length, ^{min}W = Planting Hole width, ^{min}D = Planting Hole depth
 LS = Light Standard, S = Standard, SSe = Selected Standard, H = Heavy Standard, EH = Extra Heavy Standard, SM = Semi Mature
 N.B. Staked tree planting hole dimensions to accommodate the rootball are a minimum. Rootball dimensions can, & do, vary some variance to be expected naturally between species, tree stock suppliers and seasons. In the event the rootball exceeds the stated dimensions, the contractor shall seek advice from the Landscape Architect before commencing further. Thereafter, the Landscape Contractor shall ensure the hole (in Open Ground) to the advice given in BS 8454: 2014 with the exception of the pit dimensions which shall be varied to achieve a minimum dimension of 100mm greater than the rootball. Tree planting hole depth shall generally be no greater than the existing rootball or container depth. The Landscape Contractor shall take care not to damage any underground utilities before commencing.
 * where root spread is taken to the rootball rim
 ** section 3.1.2 of BS 8454:2014 states that: "Tree pits should have a diameter at least 25mm greater than that of the root system." However, this does not allow adequate space for forming in around the rootball to footfall.

SECTION ELEVATION



TREE PLACEMENT: PLANTING HOLE CENTRE

ROOT COLLAR FLARE: SET JUST PROUD OF G.L.

BARK MULCH: AMENITY, 75mm DEEP, GRADE BACK TO EXPOSE ROOT FLARE

BACKFILL LEVEL: ABOVE G.L. TO ALLOW FOR SETTLEMENT & TO PREVENT PONDING

TOPSOIL SAUCER: CREATE FOR WATERING PURPOSES & TO RETAIN MULCH

TOPSOIL TO BS 3882

PLANTING HOLE SIDES: RIP / FORK THOROUGHLY TO AID ROOT PENETRATION & DRAINAGE.

BURLAP / WIRE CAGE / CONTAINER: REMOVE

BACKFILL MATERIAL: TO MATCH ADJACENT SOIL HORIZONS 300mm (MAX) MULTI-PURPOSE TOPSOIL TO BS 3882 & SUBSOIL TO BS 8601 BELOW.

AMELIORANTS: TBC ONSITE, THEREIN: AS REQUIRED

CIRCULAR TABLED SURFACE: ADJUST HEIGHT IF REQUIRED TO PREVENT OVERDEEP PLANTING & ALLOW FOR DEVELOPMENT OF EVENLY SPACED LATERAL ROOTS. IDEALLY, TREE PIT BASE SHOULD BE CONCOMITANT WITH ROOTBALL BASE.

PLANTING HOLE BASE / FORMATION LEVEL: DISH TO PREVENT PONDING, RIPPING: NOT REQUIRED

N.B. tree pit dimensions are a function of rootball size. Rootball dimensions are dependant on size of tree specified. Refer to Table 1.

- N.B.
- BS 8454: 2014 states that, "Sensible tree pit design begins with intention of doing as little as possible other than digging a pit, planting the tree, and using the existing soil, separated as subsoil and topsoil, as backfill. Each additional level of complexity added to the basic pit design can be related to the amelioration of a particular constraint".
 - Tree shown planted in open ground in optimal conditions with minimal site constraints.
 - Tree support systems are omitted for clarity.
 - Tree pit dimensions are a function of rootball size. Rootball dimensions are dependant on size of tree specified. Refer to table.

Notes
 Information regarding "Tree Planting in Open Ground, Generally" on this sheet is derived from BS 8454: 2014
 Where every effort is made to address the most relevant aspects related to the BS, this should not be considered exhaustive as it is presented in summary form only. For further information, the reader is referred to the relevant British Standard.

GENERAL TREE PIT PLANTING NOTES:

- SPECIFIED MATERIALS:** all to be installed in accordance with the manufacturer's recommendations and/or instruction.
- PLANTING GENERALLY:** Correct planting depth is critical for transplanting success, with over-deep planting identified as a common cause of failure. The Contractor shall therefore ensure that the natural root flare of the tree is clearly visible at proposed finished soiling surface. To ensure that correct final planting position / depth is achieved, the Contractor shall therefore take care to remove all:
 - soil placed above natural root flare during nursery packaging & production - rootballing, containerisation, etc.
 - adventitious roots above the root flare.
 - wire encircling the main stem.
 - wire cage & burlap where possible. Otherwise, peel back and remove once the tree is in the planting pit.
- BACKFILL MATERIAL:** Open ground & Verges: select 'as dug' material to be reused taking care to match adjacent soil horizons (where suitability assured for tree growth); TBC onsite by Contractor. All 'as dug' topsoil material to conform to BS 3882:2015 General Purpose Topsoil & shall be reinstated to a depth of no more than 300mm. Remove all deleterious material arising (weeds, broken brick & large stones, etc). Backfill & lift in layers no greater than 150-230mm deep. Compact to between 1.5 - 2.0 mega pascals: tread down using footfall, paying particular attention to the planting hole edges and rootball extents to eliminate voids. Avoid over compaction.
- BACKFILL SOIL AMELIORANTS:** The Contractor shall satisfy himself of the general suitability of the topsoil supplied for long term tree growth. Reason: to ensure the long term longevity of the tree supplied. Thereafter: to suit site conditions. Typically, this may comprise 0.5kg of broadleaf p4 or similar (pre-hydrated with water) thoroughly mixed with the topsoil until the medium is homogeneous.
- ARISINGS:** all deleterious material arising, shall be removed offsite to a licensed tip by the Contractor.
- TREE SUPPORT SYSTEMS:** Unless otherwise stated, all trees shall be supported as identified on the Softworks drawings which use both the Triple Stake (Tst) & Underground Guyed (UG) method of tree support.
 - Tree support stakes along transport conduits are to be orientated in accordance w/ Detail 3 opposite.
 - Tree support stakes to butt up against the rootball to help stabilise it.
 - Tree support height above ground shall be as identified on Detail 3.
 - Stakes to be removed to a minimum 150mm below ground level with no sharp edges as soon as the developing root system is self-supporting & root firmness is proven.
 - Irrigation pipes to be installed around the AG tree support system & on top of the UG tree support system.
- ROOT PROTECTION MEASURES:** supply & install permeable rootbarriers (Terram RootGuard, or equal & approved) to a min. depth of 600mm below ground. Installation: as per manufacturer's instruction. Finished level: top of barrier to be 10mm above G.L. Zone of Deployment: protection of hard surfacing / services lying within a min. 5m radius of the proposed tree and/or as dictated on plan.
- IRRIGATION:** Open ground & Verges: Create topsoil chancer as Detail 2. Water at frequency necessary to ensure establishment & survival.
- DRAINAGE:** the contractor shall satisfy himself that the tree pit is free draining. The contractor shall notify the Contract Administrator of any problem areas and await further instruction before proceeding further. Reason: to ensure the longevity & viability of the tree supplied. TBC onsite.
- BARK MULCH:** Amenity, 8-40mm particle size, mid dark brown, Rolawn (or equal & approved). Coverage: 75mm deep, 1m Ø around base of tree.

Notes
 Note: Drawn by David Jarvis Associates Limited (KNOWN COPYRIGHT). ALL RIGHTS RESERVED 2019 LICENCE NUMBER 03000311.
 This Drawing is for Planning purposes only. Do not use this drawing for Construction. The information contained on the drawing should be used as a guide to the final forms and finished of the landscape scheme. Any revisions to be approved by the Client and Local Authority.

Scale: Do not scale this drawing. Use given dimensions only.
 Survey: refer to Engineers for information regarding setting out. In the event of discrepancy refer to Engineers in the first instance.

Survey: Original survey provided by the Client.
 Services: Where possible these are identified on the drawings but, for the avoidance of doubt all service/utility locations should be considered indicative until identified on site. To ensure those services / utilities shown are correct refer to the detailed survey provided or utilities designer or Client for confirmation and further information regarding easements. In the event of new services being installed refer to the appointed Engineer. It is recommended that buried water / sewer / gas / cable / lighting / services to be installed over at service routes (to remain on site) to current BS guidelines (BS1771).

Construction Information: not detailed design (including, but not necessarily limited to: bore patterns, bedding, edging, tactile crossing, drainage, construction details, levels, drainage etc.) to be provided by an appropriately qualified professional. Highways / utilities to be approved by the Client for presentation to (and subsequent discharge from) the relevant supervising authority and/or body.
 Lighting: Refer to lighting engineers drawings.

Biosecurity: All plant stock to be sourced from a supplier certified to be pest and disease free and in accordance with Plant Passport / Animal Health Agency (aphis) and current OIE/FAO requirements. Supplier information / certification to be retained for a period of not less than 12 years and must be made available upon request.

Tree Root Protection Measures: supply & install permeable rootbarriers (Terram RootGuard, or equal & approved) to a min. depth of 600mm below ground. Installation: as per manufacturer's instruction. Finished level: top of barrier to be 10mm above G.L. Zone of Deployment: protection of hard surfacing / services lying within a min. 5m radius of the proposed tree. To be installed to 300mm depth where services / utilities require it. To be determined at Construction.

Foundations: Developers / Contractors to ensure that all Foundations (Buildings and external walling) are designed and constructed so as to take into account, at the time of maturity, any existing or proposed trees, hedgerows or other vegetation on the application site or existing vegetation on land adjoining the site at the time of construction and any trees held or hedgerows removed or adjacent to the site during the previous 25 years. For this purpose the developer / contractors will submit all relevant details to the authority dealing with the Building Regulations Certificate.

Design Levels: Refer to Engineers where design levels are not shown.
 CAD: Drawings to be read in conjunction with Designers risk assessment. Potential risks above that of those associated with the general construction typical to the drawing are identified below.

Rev.	Date	Description	DRN	CKD
R1	20/12/2019	First Issue	SC	SK

Status
PLANNING

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Project
WHITE POST ROAD, BODICOTE

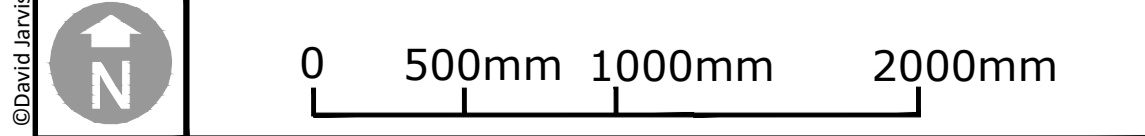
Drawing Title
TYPICAL TREE PLANTING DETAILS

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Sheet Size
A1

Date
DEC 2019

Client Ref.	Drawing Ref.	Drawing No.	Status
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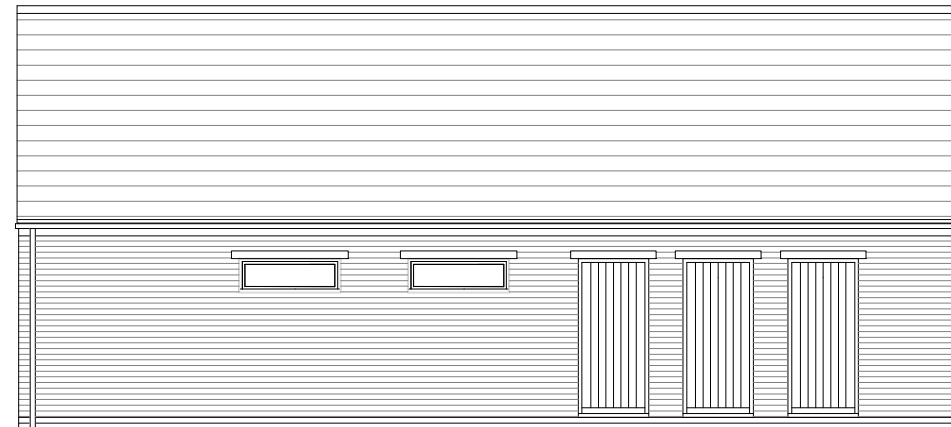


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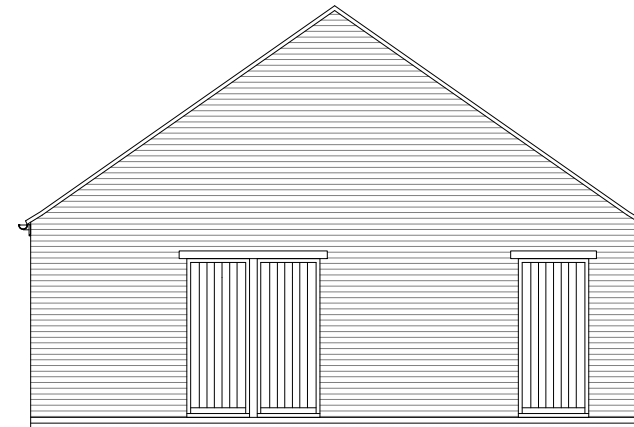


NOTES

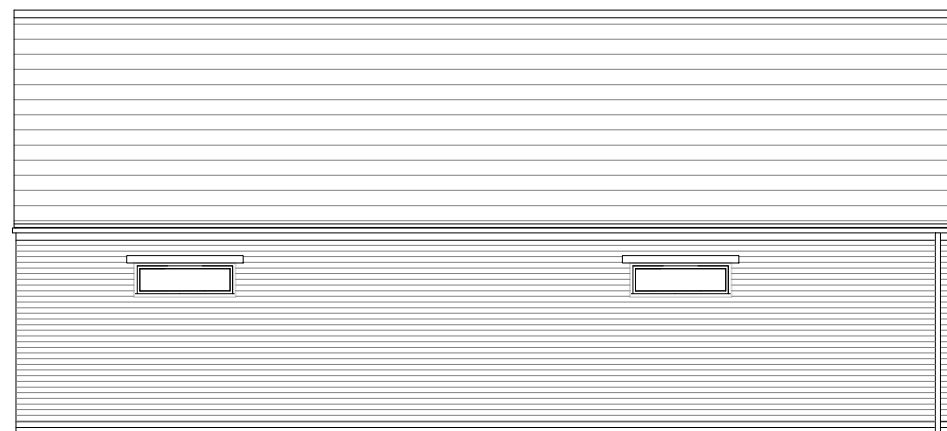
REV	DESCRIPTION	DATE	AUTH	CHK'D
A	Design Revised	27.02.2020	IR	IR



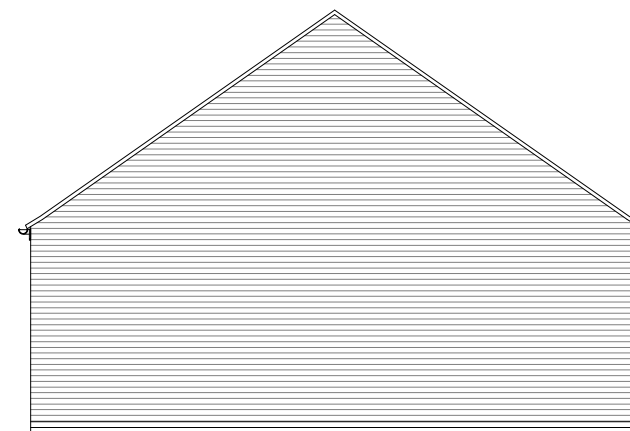
ELEVATION 1



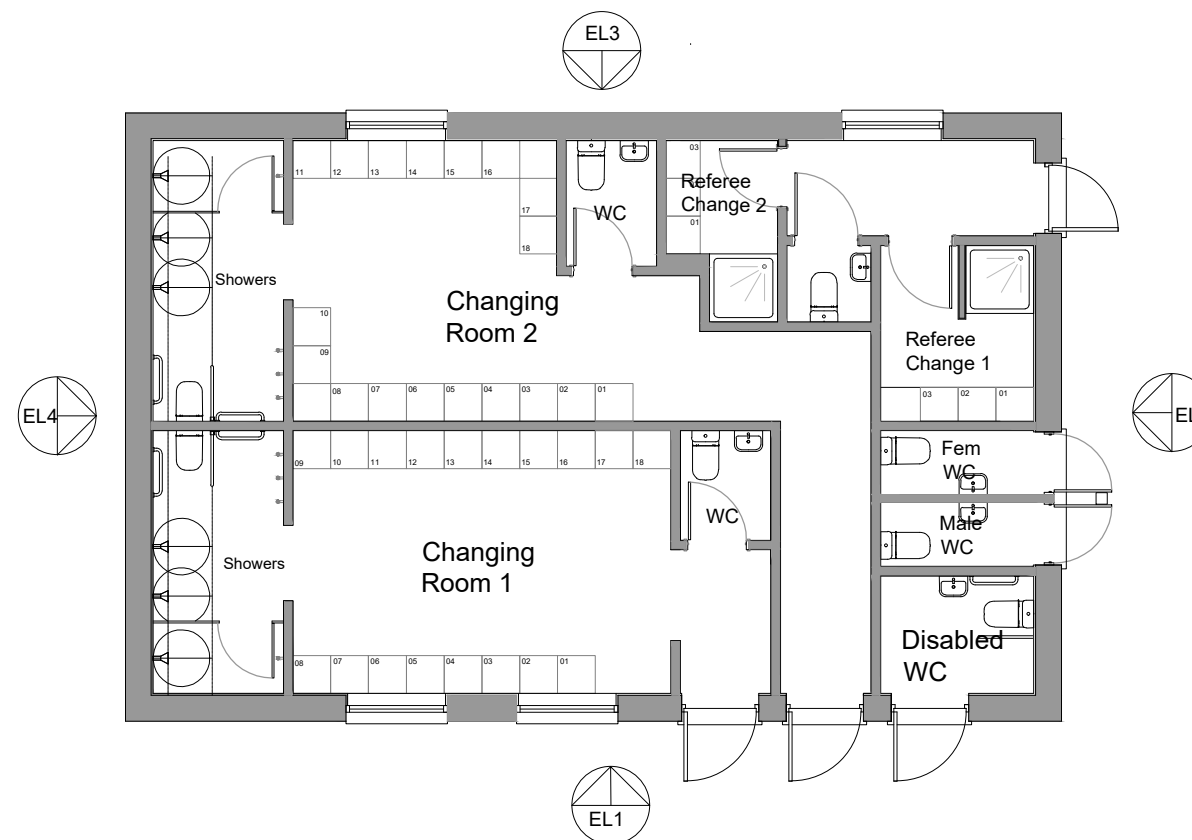
ELEVATION 2



ELEVATION 3



ELEVATION 4



FLOOR PLAN



DAVID WILSON HOMES
WHERE QUALITY LIVES

PROJECT

Bodicote

DRAWING

Sports Changing Facility
Plans & Elevations

SCALE	DATE	AUTHOR	CHK'D
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JOB NO.	DRAWING NO.	REV
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CHARACTER AREA

Rural Edge